

WHAT IS CLAIMED IS:

1. A slider comprising an aerodynamic surface which comprises:
a first bearing surface, disposed on the aerodynamic surface, defining a bearing height;
a cavity floor disposed on the aerodynamic surface at a cavity depth below the bearing height; and
a first recessed pressurization surface, adapted to provide above-ambient fluid pressure when the slider is in nominal flight, which is greater than fluid pressure provided elsewhere on a trailing half of the aerodynamic surface at a substantial displacement from a longitudinal centerline of the aerodynamic surface; the first recessed pressurization surface being disposed on the aerodynamic surface at a recessed depth which is between the bearing height and the cavity depth.
- 2 The slider of claim 1, wherein the recessed depth is at most about 550 angstroms below the bearing height.
3. The slider of claim 1, wherein a portion of the first recessed pressurization surface is disposed substantially between the first bearing surface and the trailing edge, and extends to substantially proximate to the trailing edge.
4. The slider of claim 1, wherein a portion of the first recessed pressurization surface is disposed substantially between the first bearing surface and a first side edge of the aerodynamic surface.
5. The slider of claim 1, further comprising a step surface disposed on the aerodynamic surface at a step depth below the bearing height that is between the recessed depth and the cavity depth.

6. The slider of claim 5, wherein a portion of the step surface is disposed substantially adjacent to the first recessed pressurization surface and substantially between the first recessed pressurization surface and a first side edge of the aerodynamic surface.

7. The slider of claim 1, further comprising a deep cavity surface disposed on the aerodynamic surface at a deep cavity depth that is greater than the cavity depth.

8. The slider of claim 1, wherein the aerodynamic surface further comprises a second recessed pressurization surface disposed at substantially the recessed depth.

9. The slider of claim 8, wherein the second recessed pressurization surface is disposed substantially between the first bearing surface and a trailing edge of the aerodynamic surface.

10. The slider of claim 8, wherein the aerodynamic surface further comprises a second bearing surface, the first recessed pressurization surface is disposed substantially between the first bearing surface and the trailing edge, and the second recessed pressurization surface is disposed substantially between the second bearing surface and the trailing edge.

11. The slider of claim 8, comprising at least three recessed surfaces disposed on the aerodynamic surface at substantially the recessed depth.

12. The slider of claim 1, wherein the first bearing surface is disposed substantially proximate to a trailing edge of the aerodynamic surface, and a data interface head is disposed substantially on the first bearing surface.

13. The slider of claim 1, wherein the first recessed pressurization surface comprises a convergent channel, comprising a channel inlet, open to fluid flow from a direction of a leading edge of the aerodynamic surface; channel side walls, disposed from the channel inlet toward a trailing edge of the aerodynamic surface; and a channel dam, closed to fluid flow, disposed between the channel side walls.

14. The slider of claim 13, wherein an upper edge of the channel side walls and an upper edge of the channel dam are substantially contiguous with the first recessed pressurization surface.

15. The slider of claim 1, further comprising a landing pad disposed substantially on the first recessed pressurization surface.

16. The slider of claim 1, wherein the aerodynamic surface further comprises a leading wall.

17. The slider of claim 1, wherein the slider comprises a data interface head.

18. A slider comprising an aerodynamic surface which comprises:
a leading edge and a trailing edge;
a leading bearing surface disposed on the aerodynamic surface substantially proximate to the leading edge at a bearing height;
a trailing bearing surface disposed on the aerodynamic surface substantially proximate to the trailing edge at the bearing height;
a cavity floor disposed on the aerodynamic surface at a cavity depth below the bearing height; and

a first recessed pressurization surface and a second recessed pressurization surface disposed on the aerodynamic surface nearer to the trailing edge than is the leading bearing surface, at a recessed depth that is between the bearing height and the cavity depth and at most about 550 angstroms below the bearing height, the first and second recessed pressurization surfaces each comprising a convergent channel, and being adapted to provide above-ambient fluid pressure when the slider is in nominal flight.

19. The slider of claim 18, further comprising a third recessed surface and a fourth recessed surface disposed on the aerodynamic surface at substantially the recessed depth.

20. The slider of claim 18, further comprising a step surface disposed on the aerodynamic surface at a step depth below the bearing height that is between the recessed depth and the cavity depth.

21. A slider comprising an aerodynamic surface which comprises:
a bearing surface disposed on the aerodynamic surface at a bearing height;
a cavity floor disposed on the aerodynamic surface at a cavity depth below the bearing height; and
means, disposed on the aerodynamic surface between the bearing height and the cavity depth, for providing above-ambient pressure when the slider is in a substantially nominal flying mode during nominal operation of a system in which the slider is incorporated.

22. The slider of claim 21, wherein the means for providing above-ambient pressure is disposed on the aerodynamic surface at a means depth of at most about 550 angstroms below the bearing height.

23. The slider of claim 22, further comprising a step surface disposed on the aerodynamic surface at a step depth below the bearing height that is between the means depth and the cavity depth.